

Listing of the Claims

³⁴
1-35. (Cancelled)

35. (Currently Amended) An implantable endoprosthesis and radiopaque marker system including:

an implantable endoprosthesis adapted to be disposed in a body lumen; and
a marker having at least one radiopaque portion including a radiopaque material, wherein
the marker is removably attached to the implantable endoprosthesis and is removable from the
prosthesis when the endoprosthesis is *in vivo*.

36. (Previously Added) The system of claim 35 wherein:

the marker has a portion extending away from the endoprosthesis when the marker is so
attached thereto, and the marker is removable from the endoprosthesis by pulling said portion
away from the endoprosthesis.

37. (Previously Added) The system of claim 36 wherein:

the marker is elongate, and said portion of the marker comprises a free end thereof.

38. (Previously Added) The system of claim 37 further including:

a component at the free end of the marker for facilitating the pulling of the free end away
from the endoprosthesis.

39. (Previously Added) The system of claim 38 wherein:

said component is selected from the group consisting of: hooks, knobs, rings, and
eyelets.

40. (Previously Added) The system of claim 35 wherein:

the radiopaque material includes an element having an atomic number of at least 22.

41. (Previously Added) The system of claim 40 wherein:

the radiopaque material includes said element in a form selected from the group consisting of: a metal, a metallic alloy including the element, an oxide including the element, and a salt including the element.

42. (Previously Added) The system of claim 40 wherein:

the marker includes a polymer matrix combined with a powder, and the powder includes the element.

43. (Previously Added) The system of claim 35 wherein:

the radiopaque portion of the marker is provided as a coating.

44. (Currently Amended) The system of claim 35 further including:

a delivery device adapted for a delivery of the endoprosthesis to a body lumen and a withdrawal of the delivery device from the body lumen after an implantation of the endoprosthesis within the body lumen; and

wherein the marker further is attached to the delivery device whereby said withdrawal of the delivery device removes the marker from the endoprosthesis.

45. (Previously Added) The system of claim 35 wherein:

a portion of the marker is woven into the endoprosthesis.

46. (Currently Amended) The system of claim 35 wherein:

the marker is formed as a spring, and when ~~so~~ removably attached to the implantable endoprosthesis is retained with respect to the endoprosthesis by a spring force.

47. (Previously Added) The system of claim 35 further including:

an adhesive for temporarily securing the marker to the endoprosthesis.

48. (Previously Added) The system of claim 35 further including:

a wire for removably attaching the marker to the endoprosthesis.

49. (Previously Added) The system of claim 48 wherein:

the wire is engaged with the endoprosthesis and the marker in a manner that requires a removal of the wire from the endoprosthesis before removal of the marker from the endoprosthesis.

50. (Previously Added) The system of claim 35 wherein:

the radiopaque material is adapted to be at least partially dispersed from the marker into the body when the endoprosthesis is *in vivo*.

51. (Previously Added) The system of claim 35 wherein:

the marker includes a material selected from the group consisting of: barium sulfate, bismuth trioxide, iodine, iodide, titanium oxide, zirconium oxide, gold, platinum, silver, tantalum, niobium, stainless steel, and combinations thereof.

52. (Previously Added) The system of claim 35 wherein:

the marker includes at least one hollow or porous portion therein adapted to receive the radiopaque material.

53. (Previously Added) A temporary radiopaque marker comprising:

an elongate strand having a proximal end, a distal end, an average thickness of from about 20 microns to about 500 microns, wherein the strand is adapted to be removably attached to an implantable endoprosthesis in a manner that facilitates a removal of the strand from the endoprosthesis by pulling the strand by said proximal end away from the endoprosthesis, and wherein the elongate strand has at least one radiopaque portion including a radiopaque material adapted to be disposed proximate the endoprosthesis when the marker is so attached thereto.

54. (Previously Added) The marker of claim 53 wherein:

the proximal end of the strand comprises a component to facilitate said pulling of the strand.

55. (Previously Added) The marker of claim 54 wherein:

said component is selected from the group consisting of: hooks, knobs, rings, and eyelets.

56. (Previously Added) A process for modifying an implantable endoprosthesis to temporarily enhance a fluoroscopic visualization of the endoprosthesis during and after an implantation thereof in a body lumen, including:

providing a body implantable endoprosthesis;

providing a marker having at least one radiopaque portion including a radiopaque material; and

prior to a deployment of the endoprosthesis in a body lumen, attaching the marker to the implantable endoprosthesis in a manner that facilitates a removal of the marker from the endoprosthesis when the endoprosthesis is *in vivo* after the deployment.

57. (Previously Added) The process of claim 56 wherein:

said marker when so attached has a free end extending away from the endoprosthesis, whereby the marker is removable from the endoprosthesis by pulling the free end away from the endoprosthesis.

58. (Previously Added) The process of claim 56 wherein:

the attaching of the marker to the endoprosthesis comprises using a mode of attachment selected from the group consisting of: weaving the marker into the endoprosthesis; providing the marker as a spring having a spring force and using the spring force to retain the marker attached to the endoprosthesis; and applying the marker to the endoprosthesis using an adhesive.

59. (Previously Added) The process of claim 56 further including:

after attaching the marker to the endoprosthesis, mounting the endoprosthesis releasably to a delivery device.

60. (Previously Added) The process of claim 59 further including:

securing the marker to the delivery device, thereby to enable a removal of the marker from the endoprosthesis by withdrawing the delivery device from the lumen after the deployment and with the endoprosthesis remaining in the lumen.

61. (Currently Amended) A process for deploying an endoprosthesis within a body lumen, including:

providing an elongate marker having at least one radiopaque portion including a radiopaque material;

removably attaching the elongate marker to an implantable endoprosthesis;

placing the endoprosthesis and the attached marker within a body lumen and moving the endoprosthesis and marker toward a selected site for a deployment of the endoprosthesis and marker in the lumen, while determining a position of the endoprosthesis and marker at least in part by fluoroscopically imaging the marker; and

after deploying the endoprosthesis and marker at the selected site, removing the marker to leave the endoprosthesis at the site.

62. (Previously Added) The process of claim 61 further including:

prior to placing the endoprosthesis and marker within the body lumen, loading the endoprosthesis and marker into a delivery device, and using the delivery device to move the endoprosthesis and marker toward the selected site; and

wherein deploying the endoprosthesis and marker comprises releasing the endoprosthesis and marker from the delivery device.

63. (Previously Added) The process of claim 62 further including:

attaching the elongate marker to the delivery device before using the device to move the marker and endoprosthesis toward the selected site;

wherein said removing the marker consists essentially of withdrawing the delivery device from the body lumen after releasing the endoprosthesis and marker.

64. (New) The system of claim 44 wherein:

the marker is attached to the delivery device by a mode of attachment selected from the group consisting of: mechanical fastening, thermal bonding, and chemical bonding.

65. (New) The system of claim 44 wherein:

the delivery device includes a tube having a distal region surrounded by the endoprosthesis during said delivery of the endoprosthesis to the body lumen, and the marker is attached to the tube at a location proximal of said distal region.

66. (New) The marker of claim 54 wherein:

said component comprises a handle.

67. (New) The process of claim 60 wherein:

said securing the marker to the delivery device comprises using a mode of attachment selected from the group consisting of: mechanical fastening, thermal bonding, and chemical bonding.

68. (New) The process of claim 60 wherein:

the delivery device includes a tube, and said mounting the endoprosthesis releasably to a delivery device includes disposing the endoprosthesis in surrounding relation to a distal region of the tube; and

said securing the marker to the delivery device includes attaching the marker to the tube at a location proximal of said distal region.

69. (New) The process of claim 63 wherein:

attaching the elongate marker to the delivery device includes using a mode of attachment selected from the group consisting of: mechanical fastening, thermal bonding, and chemical bonding.

70. (New) The process of claim 63 wherein:

the delivery device includes a tube, and said loading the endoprosthesis and marker into a delivery device comprises disposing the endoprosthesis in surrounding relation to a distal region of the tube; and

said attaching the elongate marker to the delivery device includes attaching the marker to the tube at a location proximal of the distal region.